based treatment effect for denosumab versus ZA to estimate the denosumab SRE rate. Total number of SREs, total SRE management medical cost, BTA drug cost, and total cost were calculated. The impact of denosumab per-member-per-month (PMPM) at increasing utilization rates was assessed by comparing to a scenario without denosumab, i.e., all patients received ZA and reported. Additionally, impact of annual increase in denosumab use was conducted. **RESULTS:** A total of 63 PrCa patients with BM received BTA. In the scenario where all eligible patients receiving ZA, an annual total number of SREs was 120. An annual denosumab use of 20%, 35% or 45% resulted in 4.2%, 7.4%, and 9.5% reduction in total SREs and 5.3%, 9.3%, and 11.9% reduction in medical costs of managing SREs, compared to all patients receiving ZA. The drug cost was partially offset by the reductions in the medical cost and the increase in total cost was minimal (1.2%-2.7%). The PMPM ranged $0.002-$0.005. Consecutive-year analysis showed $0.001 increase in PMPM with 10% denosumab utilization increase. **CONCLUSIONS:** Due to superior efficacy of denosumab versus ZA in SRE prevention in PrCa patients with BM, increased denosumab use results in medical cost reduction in a US MCO. Overall, denosumab provides additional clinical value with limited budget impact.

PCN40

BUDGET IMPACT ANALYSIS OF IPILIMUMAB FOR THE TREATMENT OF ADVANCED MELANOMA IN THE VENETO REGION, ITALY

Adami S[1], Aiello A[2], Palozzo AC[3], Magrì MR[2], Visentin E[2], Chiarion V[4], Michelon A[2], Alberti C[5], Maran PR[2], Saugo M[6], Scroccaro G[1]

[1]*Regione Veneto, Venezia, Italy,* [2]*UVEF Regional Drug Coordination Centre, Verona, Italy,* [3]*Venetian Oncology Institute, Padova, Italy,* [4]*Venetian Oncology Instituite, Padova, Italy,* [5]*Azienda Ospedaliero Universitaria di Verona, Verona, Italy,* [6]*Regione Veneto, Padova, Italy*

OBJECTIVES: Ipilimumab is the first drug to be licensed in Italy for the treatment of advanced melanoma in adults who have received prior therapy. This study aims to estimate the budget impact of ipilimumab in patients who live in the Veneto Region. **METHODS:** Our analysis was performed from the perspective of the Italian health care system. Two scenarios were analyzed: one with the optimization of vials and the other without. Only drug acquisition costs (measured in euro) were considered into the analysis. All costs were referred to year 2013. **RESULTS:** Based on the incidence and mortality rates of the last three years, a total of 80 adult patients were assumed to be elegible for the treatment in the Veneto Region. The cost per mg of ipilimumab was €53,70: one 10 ml vial contains 50 mg of ipilimumab and one 40 ml vial contains 200 mg of ipilimumab. The recommended induction regimen is 3 mg/kg administered intravenously every 3 weeks for a total of 4 doses. The costs per patient of one year's therapy with ipilimumab ranged from €45.108 with vial optimization (considering 4-5 patients infused at the same time - average weight 70 kg) to €53.700 without. The Veneto Region identified a single center for the preparation/administration of treatment to minimize drug waste and to reduce the yearly treatment cost per patient, with a saving of €8.592 per patient/year. Applied to whole elegible patients (average weight 70-75 kg), it allows to obtain savings up to €430.000-690.000 per year. **CONCLUSIONS:** High prices for new cancer drugs are a growing concern to payers, given the large number of cancer drugs in development and the limited health care resources. Vial optimization may be an useful strategy to decrease waste, maximizing the use of health care resources and ensuring that eligible patients are treated.

PCN41

ECONOMIC EVALUATION OF EPOETIN ALFA HEXAL (BINOCRIT) COMPARED TO DARBEPOETIN ALFA (ARANESP) IN THE TREATMENT OF CHEMOTHERAPY INDUCED ANEMIA (CIA) IN GERMANY

Turner M[1], Walsh K[1], Whitehouse J[2]

[1]*Sandoz Biopharmaceuticals, Holzkirchen, Germany,* [2]*GfK Bridgehead, Melton Mowbray, UK*

OBJECTIVES: To compare the budget requirements of utilizing epoetin alfa Hexal vs. darbepoetin alfa in the German health care system **METHODS:** Anemia is a common side effect observed in patients receiving myelosuppressive chemotherapy. The purpose of this pharmacoeconomic analysis was to evaluate the cost-effectiveness of the short-acting biosimilar ESAs epoetin-alfa Hexal (EA) 30,000 or 40,000 IU weekly (QW) versus long-acting erythropoiesis-stimulating agent (ESA) darbepoetin alfa (DA) 150 mcg weekly (QW) and 500 mcg once every 3 weeks (Q3W) for the treatment of CIA. A budget impact model was constructed employing a payer perspective, per patient plus 5 year time horizon. The treatment period considered was based on 12 weeks and was aligned with routine chemotherapy regimen administration. Model inputs included: medical treatment, outcomes, and health care service utilization from published clinical studies and summary of product characteristics recommendation. Effectiveness of therapeutic alternatives was determined by comparing hemoglobin maintenance rates. Initial treatment with biosimilar epoetin α 30,000 IU or 40,000 IU per week has been shown to produce a similar Hb response. Costs included only drug acquisition costs and reflect 2013 data. The analysis was performed from the perspective of the German health care system. **RESULTS:** The average expected pharmaceutical costs per patient were €4,843 for DA Q3W, €4,383 for DA QW and €2,944 for EA 30,000IU QW, €3,946 for EA 40,000IU QW. Cost-savings associated utilizing with utilizing Epoetin Alfa Hexal 30-40,000 are 11-49% to DA QW and were 23-64% relative to DA 3QW. **CONCLUSIONS:** In the treatment of CIA among cancer patients in Germany, epoetin alfa Hexal is projected to provide more efficient use of health care resources compared to alternative treatment strategies with darbepoetin alfa.

PCN42

A BUDGETARY IMPACT ANALYSIS MODEL FOR EVEROLIMUS IN THE TREATMENT OF ER+ HER2- METASTATIC BREAST CANCER IN ENGLAND AND WALES

Taylor M[1], Lewis L[2], Vieira J[3], Chandiwana D[3]

[1]*York Health Economics Consortium, York, UK,* [2]*York Health Economics Consortium, University of York, York, UK,* [3]*Novartis Pharmaceuticals UK Limited, GB- Frimley/Camberley, UK*

OBJECTIVES: Whilst the cost-effectiveness of everolimus + exemestane (EVE+EXE) versus placebo + exemestane (PBO+EXE) in patients with ER+ HER2- metastatic breast cancer has been demonstrated elsewhere, this is the first analysis to assess the implications for health spending at a population level. **METHODS:** The model uses a cumulative cohort approach, allowing incident patients to enter the model each year over a five-year period. The incident population was based on several factors: (i) the female population aged >15 years; (ii) the proportion of those women with advanced invasive breast cancer; (iii) the proportion who are post-menopausal; (iv) the proportion who are hormone receptor positive; (v) the proportion who are HER2-; (vi) the proportion with asymptomatic visceral disease, and (vii) the proportion for whom hormonal therapy is appropriate. Finally, the cohort was filtered to show those who had previously relapsed or progressed on NSAI. 'Per patient' treatment and adverse event costs were generated based on treatment-specific progression-free survival curves, and multiplied by the number of patients expected to receive each treatment according to market share data and likely uptake rates. An incremental analysis was performed, where two scenarios were compared: (i) a world without EVE+EXE, and (ii) a world with EVE+EXE. **RESULTS:** It is expected that a total of 1,052 patients will be eligible to receive EVE+EXE over a five-year period. In a 'world without EVE+EXE', the total five year cost was estimated as £1,652,904. Assuming an annual uptake rate of 10%, in a 'world with EVE+EXE' the total cost over the same period was expected to be £2,271,606. Therefore, the incremental cost associated with the introduction of EVE+EXE in England and Wales is £618,702 over five years. **CONCLUSIONS:** EVE+EXE was associated with modest increased health care costs but has, separately, been demonstrated to lead to incremental health benefits compared with other treatments.

PCN43

INCORPORATING STAKEHOLDER INPUT INTO BUDGET IMPACT MODELS TO COMPARE STEM CELL MOBILIZATION STRATEGIES

Jensen IS[1], Halbert RJ[2], Grosvenor A[3], Schwartz EL[4], Rossi DG[5], Naoshy S[6], Iqbal SU[6], Xiao Z[6], McSweeney PA[7]

[1]*PriceSpective LLC, Cambridge, MA, USA,* [2]*ICON, PriceSpective LLC, El Segundo, CA, USA,* [3]*PriceSpective, London, UK,* [4]*PriceSpective LLC, San Diego, CA, USA,* [5]*Medica Spedali Civili, Brescia, Italy,* [6]*Sanofi, Cambridge, MA, USA,* [7]*Colorado Blood Cancer Institute (CBCI) and The Rocky Mountain Blood and Marrow Transplant Program, Denver, CO, USA*

OBJECTIVES: There is a dearth of published health economic evidence on stem cell (SC) mobilization that can be leveraged effectively for transplant center decision making. Our objective was to develop representative budget impact models (BIM) for key decision makers to estimate the total financial impact of adopting plerixafor for SC mobilization patients undergoing autologous peripheral stem cell transplantation (ASCT) for multiple myeloma and lymphoma. The BIMs were developed for EU5 (France, Germany, Italy, Spain, UK) and United States (US). **METHODS:** Prior to BIM development, in-depth interviews were conducted in EU5 (n=33) and US (n=20), to determine the most influential decison maker(s) for choosing a mobilization regimen. The choice of inputs and outputs that are critical for the adoption of plerixafor at the hospital level, were determined. Additionally, the BIM was developed using inputs from published literature and market research. **RESULTS:** Primary research revealed that the center director and treating physician are the most influential decision makers, while hospital administrators, transplant coordinators, pharmacy directors, and apheresis directors have a more limited role. There was consensus on inputs critical for assessment: clinical (drug/regimen utilization, apheresis days, and success/failure rates) and economic (mobilization costs; drug costs; apheresis cost and hospitalization costs). Model outputs include: first mobilization success and total mobilization budget impact. Interviews with clinical experts, and primary literature review determined that the relevant mobilization regimen comparators for the models are Granulocyte-Colony Stimulating Factor (G-CSF) alone, G-CSF and plerixafor, G-CSF and chemotherapy mobilization with cyclophosphamide and the triple regimen G-CSF, chemotherapy mobilization and plerixafor. **CONCLUSIONS:** Conducting primary interviews with key stakeholders and using the latest clinical practice information for critical inputs/outputs is essential for developing a representative model that is applicable to decison makers.

PCN44

BREAST CANCER SCREENING PROGRAM IN THE BASQUE COUNTRY: COSTS AND HEALTH BENEFITS ASSESSMENT THROUGH DISCRETE EVENT SIMULATION

Arrospide A[1], Mar J[1], Comas M[2], Rue M[3], Larrañaga N[4], Acaiturri T[5], Sarriugarte G[6]

[1]*Hospital Alto Deba, Mondragon, Spain,* [2]*IMIM- Institut de Recerca Hospital del Mar, Barcelona, Spain,* [3]*Biomedical Research Institute of Lleida (IRBLLEIDA), University of Lleida. Red de Investigación en Servicios de Salud en Enfermedades Crónicas (REDISSEC), Lleida, Spain,* [4]*Basque Government, Donostia, Spain,* [5]*Hospital de Cruces, Barakaldo, Spain,* [6]*Direccion Territorial de Sanidad de Bizkaia, Bilbao, Spain*

OBJECTIVES: In the Basque Country (Spain), mammographies have been done in biennial basis to women in their fifties and sixties since 1996. The main objective of this project was the evaluation of the impact of the Screening program in terms of costs and health in the Basque women population since 1996. **METHODS:** A discrete event simulation model was built to represent the natural history of breast cancer in women invited to the breast cancer screening program in the Basque Country. The disease progress was described in three main states (healthy, preclinical and clinical) in the model. We assumed all women would be diagnosed at the beginning of the clinical stage unless it had been diagnosed previously through the screening program. The data collected among the 15 years when the screening program was held allowed model's validation. In order to compare the economic impact of these scenarios mammography and treatment costs – depending on the diseasestage at diagnosis – were included. The health impact assessment was based on quality adjusted life expectancy of cancer patients. **RESULTS:** Since the screening program started working, 8,925 cancers were detected among 313,475 women who attended the screening which represents the 76% of the invited ones. 60% of the diagnosed cancers were detected through the screening program. All the mammographies carried out during the evaluated years costed 46 million Euros. Each cancer detected in the screened scenario costs 29,581.06€, in the